

INTERNATIONAL SEARCH REPORT

Int. Application No
PCT/GB2004/002994

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61K47/48

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>WILBUR D SCOTT ET AL: "Monoclonal antibody Fab' fragment cross-linking using equilibrium transfer alkylation reagents. A strategy for site-specific conjugation of diagnostic and therapeutic agents with F(ab')-2 fragments"</p> <p>BIOCONJUGATE CHEMISTRY, vol. 5, no. 3, 1994, pages 220-235, XP002313937 ISSN: 1043-1802 Fig .1; Fig .2, compounds 5a,b</p> <p style="text-align: center;">----- -/--</p>	1-14

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
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- *O* document referring to an oral disclosure, use, exhibition or other means
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- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

19 January 2005

Date of mailing of the international search report

31/01/2005

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	ROBERTS M J ET AL: "Chemistry for peptide and protein PEGylation" ADVANCED DRUG DELIVERY REVIEWS, AMSTERDAM, NL, vol. 54, no. 4, 17 June 2002 (2002-06-17), pages 459-476, XP002293146 ISSN: 0169-409X Figures 1, 6, 14(2)	1-14
Y	DEL ROSARIO R B ET AL: "SULFHYDRYL SITE-SPECIFIC CROSS-LINKING AND LABELING OF MONOCLONAL ANTIBODIES BY A FLUORESCENT EQUILIBRIUM TRANSFER ALKYLATION CROSS-LINK REAGENT" BIOCONJUGATE CHEMISTRY, vol. 1, no. 1, 1990, pages 51-59, XP002313938 ISSN: 1043-1802 Fig.1; Scheme 1.	1-14
Y	LIBERATORE F A ET AL: "SITE-DIRECTED CHEMICAL MODIFICATION AND CROSS-LINKING OF A MONOCLONAL ANTIBODY USING EQUILIBRIUM TRANSFER ALKYLATING CROSS-LINK REAGENTS" BIOCONJUGATE CHEMISTRY, vol. 1, no. 1, 1990, pages 36-50, XP002313939 ISSN: 1043-1802 Scheme II, compounds 12-15; Scheme III.	1-14
Y	BROCCHINI ET AL.: "Molecular yardsticks. Synthesis of extended equilibrium transfer alkylating cross-link reagents and their use in the formation of macrocycles" JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, vol. 110, 1988, pages 5211-5212, XP002313940 Scheme I; Scheme II, compounds 12-17 and 32.	1-14
A	WO 99/45964 A (SHEARWATER POLYMERS INC ; HARRIS J MILTON (US); KOZLOWSKI ANTONI (US)) 16 September 1999 (1999-09-16) Abstract; p. 1, l. 11-15; p. 3, l. 18-19; p. 5, l. 1; p. 12, l. 26-p. 13, l. 2; examples; claims 14-20	1-14
A	WO 01/05818 A (KUHNIL PHARM CO LTD ; CHOI JANG SIK (KR); YOON JONG BAE (KR); LEE HYUK) 25 January 2001 (2001-01-25) claim 1.	1-7, 13, 14
A	US 2002/103259 A1 (GREENWALD RICHARD B ET AL) 1 August 2002 (2002-08-01) compounds 26, 28, 29, 31, 38, 39.	1-6, 10-14
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INTERNATIONAL SEARCH REPORT

In **ial Application No**
PCT/GB2004/002994

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 786 387 A (ANDO TAKASHI ET AL) 28 July 1998 (1998-07-28) col. 1, l. 10-11; col. 2, l. 30-63; examples 1-6	1-6, 13, 14
A	WO 99/55377 A (APPLIED RESEARCH SYSTEMS ; ROBERTS MICHAEL J (US); HARRIS MILTON (US);) 4 November 1999 (1999-11-04) Abstract; p. 18, l. 30-p. 19, l. 17.	1-14

INTERNATIONAL SEARCH REPORT

 International Application No
 PCT/GB2004/002994

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9945964	A	16-09-1999	AT 268609 T	15-06-2004
			AU 2903899 A	27-09-1999
			CA 2323048 A1	16-09-1999
			DE 69917889 D1	15-07-2004
			EP 1411075 A2	21-04-2004
			EP 1061954 A1	27-12-2000
			JP 2002506087 T	26-02-2002
			WO 9945964 A1	16-09-1999
			US 2001011115 A1	02-08-2001
			US 2004059025 A1	25-03-2004
			US 2002040076 A1	04-04-2002
			US 2002037949 A1	28-03-2002
			US 2002052430 A1	02-05-2002
WO 0105818	A	25-01-2001	WO 0105819 A1	25-01-2001
			AU 4934299 A	05-02-2001
			AU 5713500 A	05-02-2001
			WO 0105818 A1	25-01-2001
US 2002103259	A1	01-08-2002	US 6395266 B1	28-05-2002
			US 6153655 A	28-11-2000
			US 2004053976 A1	18-03-2004
			AU 3648399 A	08-11-1999
			CA 2328922 A1	28-10-1999
			EP 1071455 A1	31-01-2001
			JP 2002512265 T	23-04-2002
			WO 9953951 A1	28-10-1999
US 5786387	A	28-07-1998	WO 9525764 A1	28-09-1995
WO 9955377	A	04-11-1999	AT 275422 T	15-09-2004
			AU 762621 B2	03-07-2003
			AU 3767499 A	16-11-1999
			BG 104871 A	31-07-2001
			BR 9910023 A	26-12-2000
			CA 2330451 A1	04-11-1999
			CN 1302209 T	04-07-2001
			DE 69920002 D1	14-10-2004
			EA 3789 B1	30-10-2003
			EE 200000614 A	15-04-2002
			EP 1421956 A1	26-05-2004
			EP 1075281 A2	14-02-2001
			HU 0300548 A2	28-06-2003
			JP 2002512983 T	08-05-2002
			NO 20005337 A	28-12-2000
			NZ 507456 A	31-10-2003
			PL 344490 A1	05-11-2001
			SK 16222000 A3	09-04-2001
			TR 200003161 T2	22-01-2001
			TR 200101751 T2	21-05-2002
			WO 9955377 A2	04-11-1999
			US 2004043002 A1	04-03-2004
			US 6638500 B1	28-10-2003